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MODERN AND HUMANE TREATMENT

OF THE

MORPHIN DISEASE,

J. B. MATTISON, M.D.,

Medical Director, Brooklyn Home for Narcotic Inebriates.

Published for the Author.

E. B. TREAT & COMPANY,

NEW YORK.

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#### In Loving Memory

OF

#### DR. JOSEPH PARRISH, BURLINGTON, N. J.,

Who First Directed the Writer's Attention Toward the Work to Which he is Devoting His Professional Life, this Little Book is Inscribed by

THE AUTHOR.

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#### FOREWORD.

This Monograph is the outcome of thirty years' experience in the study and treatment of the morphin disease.

BROOKLYN, 6th of May, 1902.

#### THE

### MATTISON METHOD

#### MORPHINISM.

#### A MODERN AND HUMANE TREATMENT OF THE MORPHIN DISEASE.

During the last three decades, morphinism has reached such proportions as to engage attention of the profession at home and abroad, and evoke various methods for its cure.

These have been based on a varying rate of the opiate withdrawal—the sudden method, the rapid method, the slow method. The first, abrupt and entire disuse; the second, in five to ten days; the third, one month to one year. Each has its advocates, and, under certain conditions, each its advantages.

The most prominent of the first was Levinstein, of Berlin, who, in 1877, presented his "Morbid Craving for Morphia"—a scientific and valuable treatise as regards the etiology and pathology of this disease, but commending a plan of treatment that is *cruel*, always causes needless suffering, and sometimes ends in death. This is known as the German method, or, more strictly speaking, the Levinstein method. Erlenmeyer, of Bendorf, advised rapid decrease of the usual opiate, ending it in five to ten days.

Of the slow method there are several types, all taking weeks or months for the opiate quitting, and differing, mainly, in the measures used during the closing weeks or days of treatment.

Burkart, of Bonn, takes several weeks for the opiate decrease, substitutes opium for morphin toward the end, and with it completes the cure. Schmidt, of Wiesbaden, reduces the opiate during several months, and, when a very small daily taking is reached, replaces the morphin and concludes treatment with codein. Oscar Jennings, of Paris, in connection with Ball, presented another slow plan, which may be called the French method, that consists in reducing the morphia during several weeks and the use of spartein or digitalis and nitro-glycerin in its place as heart tonics and stimulants, toward the close of treatment.

Lastly, the writer offers his own method—an American method—one original and successful, and which, after large experience, he makes bold to say is in advance of any mode of treatment yet presented.

Tersely stated, it may be said that this disease involves the cerebro-spinal and sympathetic systems—well-attested clinical fact proving that they bear the brunt of opium excess, which induces changes that give rise to great nervous derangement when the opiate is abruptly withdrawn. The aches, pains, yawning, sneezing, shivering, nausea, vomiting, diarrhea, unrest, delirium, convulsions, exhaustion, collapse, incident to sudden opiate quitting, are reflex indications of great irritation in those centres, and any treatment having the power to counteract and control this condition must contribute vastly to the patient's comfort and cure.

The method we commend is a mean between two extremes—avoiding the painful ordeal of abrupt disuse and the tiresome delay of prolonged decrease—and is based on the power of certain remedial resources to subdue abnormal reflex action, and secures, largely, two cardinal objects—minimum duration of treatment and maximum freedom from pain.

It consists in producing a certain degree of nervous sedation, and consequent control of reflex irritation, by means of the bromids, though we refer, specifically, to the *bromid of sodium*, having used that exclusively in cases under our care. This is merely a new application of a well-established principle, for the power of the bromids to subdue abnormal reflex irritability is

so constant that it may be looked upon as an almost certain sequel of such medication. Dr. Edward H. Clarke, in his valuable work on the bromids, said: "Diminished reflex sensibility, however different physiologists may explain the fact, is one of the most frequent phenomena of bromidal medication that has been clinically observed, and is, therapeutically, one of the most important"; and the evidence of other observers—Gubler, Guttman, Laborde, Voison, Damourette, Eulenberg, Claude Bernard, Brown-Sequard and Echeverria—is to the same effect.

In speaking of the bromid of sodium, let it be understood that we refer, entirely, to the influence of the continued dose-by which we mean giving it twice in the twenty-four hours, at regular intervals, so as to keep the blood constantly charged with the drug. A most important difference exists between the effect of this mode of using and that of the single dose. or two or three doses so nearly together as to form, practically, one, for, in the former case the system is constantly under the bromid influence. while in the other, the drug being eliminated in a few hours, it is nearly free a large portion of the time. Results obtained from continued use cannot be gotten from the single dose, and so its value is far greater in this condition.

Again, the action of the continued dose being somewhat remote—four to six days usually elapsing before there is decided evidence in this direction-much more desirable results are secured by its employment for several days prior to complete opium quitting-meanwhile gradually reducing the opiate—than if the withdrawal be abrupt and then reliance placed on the bromid; for, in the former, the maximum sedative effect is secured at the time of maximum nervous disturbance from the opium removal, and its counteracting and controlling power is much in excess of that to be had from its taking after the setting up of the nervous irritation. What, then, we term preliminary sedation forms an original feature in our giving of the bromid, and it is this special feature we commend, our experience having convinced us that we have in it a valuable means of lessening discomfort incident to this disorder.

The value of the various bromids depends on their proportion of bromin. Bromid of potassium contains 66%, sodium 73%, and lithium 92%. We should, therefore, expect a more powerful influence from the last drug, and, according to Weir Mitchell, it has a more rapid and intense effect. The sodium, however, serves every purpose, and has special points in its favor over other bromids—is pleasanter to the taste, more acceptable to the stomach, causes little cutaneous irritation, and much less muscular prostration. In this connection, experiments by

Drs. Ringer and Stainsbury on the superior value of the sodium salt are of interest, and may be found in the *British Medical Journal*, March 24, 1883.

Either of the bromids in powder or strong solution is somewhat irritant, sometimes causing emesis, and, in any event, delaying absorption. A practical point, then, is that it be given largely diluted. Dr. Clarke says: "There should be at least a dram of water to each grain of the salt." We give each dose of the sodium with 6 or 8 ounces of cold or carbonated water, and have never known it to disagree.

To secure the requisite degree of sedation within a limited time, it is essential that the bromid be given in full doses. Failure from its use, in any neurosis, is often due, we think, to a non-observance of this point. Our initial dose of the sodium is 10 grains, twice daily, at 10 A.M. and 10 P.M., increasing the amount 20 grains each day—i.e., 20, 30, 40 grains, and continuing it, in proper cases, ten days, reaching a maximum dose of 100 grains twice in twenty-four hours.

During this time of bromidal medication the usual opiate is gradually lessened, so that on the tenth day it is entirely abandoned. A decrease of one-fourth or one-third the usual daily quantity is often made at the outset, experience having proved that habitués are almost always using

an amount in excess of their need, and this reduction causes little or no discomfort. Later, the opiate withdrawal is more or less rapid, according to the increasing sedation, the object being to meet and overcome the rising nervous disturbance by the growing effect of the sedative: in other words, maximum sedation at time of maximum irritation.

Exceptions to this may occur. Some patients are so weak and anemic on coming that a previous tonic course is deemed judicious: the usual opiate is continued for a time, and, meanwhile, by full food, tonics and other measures, effort is made to improve the impaired condition -and with success, for we have seen patients gain markedly in strength and weight during this roborant regime. Sometimes a patient before placing himself under our care has reduced his daily taking to the lowest amount consistent with his comfort. If so, the initial large reduction is not made, but the decrease is gradual throughout. Again, in some cases no reduction is made for two or three days, when the bromid effect is secured in part, and the decrease is then begun. And, with all patients this rule governs: Each case is a law unto itself; and the length and amount of the bromid giving and consequent rate of opiate decrease is determined entirely by individual peculiarity, as shown both before and during treatment.

Surprise may be expressed and objection made regarding the extent of the bromid doses, but the fact must never be forgotten that we are not to be governed in the giving of any remedy by mere minims or grains, but by the effect produced. Again, one result of opium addiction is a peculiar non-susceptibility to the action of other nervines, necessitating their more robust giving to secure a desired effect. More, under the influence of certain abnormal conditions, doses which, ordinarily, are toxic, become simply therapeutic. Medical annals abound with such cases, and among the most striking may be noted the following: Dr. Southey read before the London Clinical Society notes of a case of tetanus in a boy ten years old. The first symptoms were noted two days after a severe fright and drenching, due to the upsetting of a water-butt. They steadily increased up to the date of his admission to St. Bartholomew's Hospital, on the eighth day of his illness, when the paroxysms of general opisthotonos seized him at intervals of nearly every three minutes. Each attack lasted from fifteen to thirty seconds: and although between the seizures the muscles of the trunk became less rigid, those of the neck and jaw were maintained in constant cramp. The patient was treated at first with chloral-10 grains-and bromid of potassium-20 grains-every two hours; and afterward with the bromid alone, in 60 grain

doses every hour and a half. When about 2 ounces were taken in twenty-four hours, the attacks became less frequent; but at first each separate seizure was rather more severe, and on the evening of the eleventh day he was able to open his mouth better. On the thirteenth day the bromid was decreased to 20 grains every three hours, and on the fourteenth day was discontinued. When it had been omitted twentyfour hours, the attacks returned at intervals of an hour, and the permanent rigidity of the neck muscles was re-established. His condition now steadily became worse, so that on the eighteenth day of his illness it became necessary to resort to the previous large doses-I dram every hour and a half. After three such doses, the expression became more natural, and he was able to open his mouth again; but it was not until the twenty-fifth day of his disease that it was possible to discontinue the remedy. The patient remained in a state of remarkable prostration and drowsiness, sleeping the twenty-four hours round, and only waking to take his food, for eight days, and passed all his evacuations under him. He rapidly and steadily convalesced. The bromid caused no acne or other unpleasant effect, and certainly seemed to exert a markedly controlling effect on the tetanus.

Given as we commend, no effect is usually noted before the fourth or fifth day. Then

patients often mark an increasing drowsiness. which deepens into slumber more or less profound, so much so at times, that it is difficult to remain long awake. With this is an aversion to exercise, not solely due to lessened muscle force, but largely to mental hebetude. cases are met in which the hypnotic effect is not very decided. Sometimes the bromic breath is noted. Acne is usually absent. The renal secretion is often largely increased. We have known a patient pass more than 100 ounces in twenty-four hours, and we have noticed that where there is no active diuresis, the sedative effect is more prompt and decided.

Before ending this phase of treatment, we must again insist that all cases of opium-taking do not require the bromid alike. This is a point of prime importance, and failure to put it in practice is often the main cause of ill-success or untoward result in its use. The patient, as well as his disease, must be treated, and he who uses the bromid as Fothergill said Opie mixed his colors-"with brains"—will get the most good. Let it be distinctly understood that some cases are ineligible for the bromid treatment. Those complicated with serious lesion of heart, lung or kidney should be excluded, and those with marked general debility should always be given a previous tonic course; and, as before asserted, in each and every case where it is used.

the extent of its giving is to be governed entirely by individual peculiarity, as shown before and during treatment.

Having secured the desired sedation and reached the opiate quitting, reflex symptoms are met, mainly, by codein. The proper use of this drug is a great advance in the treatment of this disease. As a rule, it is not needed during the morphin decrease. Exceptionally, a dose or two may be required on the ninth or tenth day. When its active use is begun, it is given in doses of I to 2 grains, every three to five hours, by mouth or subdermically, and this continued usually eight to twelve days, gradually lessening the dose or increasing the interval till no longer required.

To get the best effect from codein it must be pure. We use Merck's, exclusively. Six salts are at command. They are, with the percentage of codein:

Muriate	80	%
Sulphate	76	%
Phosphate	70	%
Nitrate	82	%
Hydrobromate	72	%
Hydro-iodate	67	%

The first three—specially the phosphate are suited for subdermic use. They are soluble as follows: Phosphate... part boiling water, 4 parts cold. Muriate.... part boiling water, 20 parts cold. Sulphate... 8 parts boiling water, 40 parts cold.

Our usual solution is—Sulphate, 2 grains to 1 dram; muriate or phosphate, 6 grains to the dram. Vide—"Codein in the Treatment of the Morphin Disease," American Therapist, 1892.

The insomnia sequeling a long-use-opiate quitting is absolute—equaled only by that of the insane. Under our method it may be expected the night after the last morphia giving. It is best met with trional—20 to 30 grains, men; 20 grains, women—at 7 P.M., on tongue, aided in three hours, if need be, by an added 10 grains. If preferred, it may be given in hot water or milk at bedtime. It is, by far, the best hypnotic in these cases. As a rule, no other is needed, and its use is gradually ended during eight to twelve nights. Vide papers: "Trional: Its Use in Narcotic Inebriates," Medical News, 1893; "Trional," N. Y. Med. Journal, 1894.

These three drugs—sod. brom., codein, trional—are the main remedies in our method. Rightly used, with a tonic regime, in many cases they fully suffice.

Cases will present, however, in which added measures are needed.

Cannabis Indica, for relief of unrest, agrypnia

and neuralgia is of great value, but codein and trional largely supplant it. Full doses, every two to four hours, may be given. A word as to "full doses." Opium-taking begets a peculiar tolerance of some nervines, and they must be robustly given. The book dose is useless. We give 30 to 60 minims, Fluid Extract-Squibb's. or Parke, Davis and Co.'s Normal Liquid; or solid extract-P. D. and Co.'s, or Herring'sin I to 4 grain doses. Small doses are stimulant and exciting; large ones sedative and quieting. These doses are harmless. Hemp is not a poison. There is no death on record. Hundreds of such doses, to men and women, alike, have never brought us any anxiety along toxic lines. Vide "Cannabis Indica as an Anodyne and Hypnotic." Brooklyn Medical Journal, 1891.

For unrest and neuralgia, the Turkish bath often acts like magic. The proper use of it, in many cases, will lessen largely the need for drugs. The best portable bath is made by Robinson, Toledo. So, too, hot baths. Warm baths are worthless.

For relief of neuralgic pain, varied measures suffice. Leading the list are electricity, hot baths and the local use of ether.

As to the value of the constant current in migraine and other neuralgiae, so common in opium habitués, and the manner of using it, see *Medical Review*, 1891. The same agent is ef-

fective in relieving limb and lumbar pain, though here a much stronger current is required than can be used with safety about the head.

Regarding ether, those who have not used it will, we think, be surprised at its pain-easing power. In either way applied—spray, drop or lavement—it is potent for good.

Local hot baths, Turkish or Russian baths are of service. These three—electricity, ether, and the baths—are valued local anodynes, and a special point in their favor is freedom from unpleasant gastric or other effect.

Another topical anodyne is:

Menthol, ...... I part; Chloroform, ..... Io parts; Ether, ..... 15 parts;

used as spray. Of the coal-tar salts, phenacetin or phenalgin, in full doses, is best.

Under our plan of treatment, disorder of stomach or bowels is rare. Our rule is to give a mercurial or other cathartic at the outset, if there be alvine torpor, and then secure daily action by such laxative as seems best. If restraint be needed, large enemas of hot water may be used. These failing, sulphocarbolate of zinc, I to 3 grains; Fld. Ext. Coto, IO to 20 minims; subnitrite or salicylate of bismuth, 30 to 60 grains; tannopin, IO grains—one or other every three hours, may be given. If, however, it persists, the best thing is a full opiate—tinct, opii, by mouth or bowel, at bed-

time, preferred. This promptly controls, gives a full night's sleep, and the trouble seldom recurs. Fear of untoward effect on convalescence is unfounded.

Diet is not restricted unless stomach or bowel condition demands. We have seen many patients recover who did not vomit once, or who had only two or three alvine actions daily. If gastric unrest presents or portends, a strict milk diet, for days, is best. The excessive vomiting noted by Levinstein and Obersteiner—abrupt disuse—we have never noted. The former thought that collapse—which we have never seen—in several of his cases was due to purging and vomiting. Most likely the largest factor in causing it was the exhausting mental and physical suffering which his monstrous method entails.

If the stomach rebels, entire rest for a time, sodae bi-carb., milk and lime-water, malted milk, in small amount, may act well. Sinapisms, faradism, chloroform, ether, ice, are of value. All failing, a full opiate, subdermically, will promptly suffice.

In some cases, after the opiate quitting, patients are directed to bed, and kept there two to four days, for rest is an aid of value. Erlenmeyer says: "The best remedy is rest in bed. The importance of quiet, rest in bed, and warmth in promoting restoration during the abstinence struggle cannot be overestimated. I order every patient to bed at the start, and can

state with confidence that those who submit to this till I allow a change, will get along more easily and satisfactorily during the treatment than others who do not obey, but who insist on moving about or having the run of the premises."

Having crossed the opiate Rubicon, treatment pertains mainly to debility and insomnia. For the former, coca is of value—fluid extract, 2 to 4 drams, with other tonics, four or more times daily, decreasing as need lessens and ending its use usually within a fortnight. To remove the mental and physical depression, the minor neuralgiae and the desire for stimulants sometimes noted, it is often of signal service. Should it disagree, cocain may act well, given by skin or stomach—the latter better—in doses of I to 3 grains, followed by a half-tumbler of hot water every two to four hours. If used subdermically, one-half the dose by mouth. Opinions vary as to its value. Obersteiner lauds it. Erlenmever decries it. We have found it of some service. But it is not a specific; it is not safe for self using. and it is not suited to all cases, being of most value in painless unrest or much depression.

General faradization, 20 minim seances daily, is a valued tonic. This gives a feeling of exhilarating comfort, but care must be taken not to overdo, for a current too strong or too long makes mischief—over-stimulating and exhausting to the extent, it may be, of several days' discomfort

which nothing but time will relieve. Faradism also acts kindly in easing the peculiar unrest—"fidgets"—and the nagging leg-aches sometimes noted. It may be applied in the usual way, or through the special electrodes we have devised.

Galvanism is a roborant of value. Our method is—positive pole to neck-nape and negative to epigastrium for five minutes; then the former behind the angle of each jaw for a minute or two, making entire seance seven to nine minutes.

The morning cold shower bath, with many is a great rouser, and some who dread it at first come to value it highly.

Internal tonics have a place in the roborant regime. Many habitués are below par; and it is our custom to give such—often from the start—phosphorus, strychnia, quinia and arsenic combined. Arsenic is of special value in some of these cases, and may be given with good effect for months. So, too, the glycero phosphates. If anemic, ferric salts. Caffein—tonic, stimulant and diuretic—given sometimes with codein and cocain, is of value. Malt extract and cod-oil are each of service in certain cases, and, singly or combined, may be used for weeks.

Some anorexia is often present, yet it may not prevent the regular meal, and need never occasion anxiety, for it will likely give place to a vigorous appetite that may be encouraged to fullest feeding short of digestive disaster. If it be slow in returning, orexin, or one-fourth to onehalf grain, or one to five minim doses of Ext. Indian Hemp, an hour before meals, may have orexic action. Improved nutrition is often marked after opiate quitting—some patients adding to their avoirdupois a pound per day.

Regarding the insomnia, Levinstein said: "Sleeplessness, which is generally protracted up into the fourth week, is very distressing." Our record differs. Wakefulness is an invariable sequel, but can be controlled, and recovery can be promised without the loss of a night's sleep. We have known a patient do without hypnotic in three, others in five; and the average, in a series of cases, was eleven nights.

This insomnia is of two kinds. Most patients get sleep soon on retiring, but waken early—three or four o'clock—and fail to get more. Others remain awake nearly all night before slumber comes, and these usually require soporifics the longer. At this writing, we have two patients—man and wife—picturing perfectly this double agrypnia. The man, who had the commoner kind, has regained normal sleep; the woman still requires a decreasing dose of solid extract Indian Hemp.

For relief of this, Cannabis Indica will often suffice. It is given in 30 to 60 minim doses, in capsule, or mixed with glycerin or ginger-syrup; or 2 or more grains, solid extract, two hours be-

fore bedtime. In some, laughing and talking may be noted during the first hour, tending to sleep in the second. Many require nothing else. At the end of a week it is lessened, and usually ended in ten or twelve days. The worst case of insomnia we ever noted—trional, sulfonal, chloral, paraldehyd, each causing gastro-bowel distress without sleep—due more to the doctor's make-up than to the drugs—was met, fully, by two doses of 5 and 10 grains Cannabis Indica at a two hours interval.

Other hypnotics—chloral, chloralamid, sulfonal, paraldehyd, amylen, somnal, somnos, chloretone, chloralose, dormiol, in full doses—often act well. Chloral, during the early abstinence time, fails as a soporific, often causing a peculiar excitement or intoxication—patients talking, getting out of bed and wandering around room—followed after several hours by partial sleep. Later, in liberal dose—we prefer 40 grains at once, to two 20 grain doses—it can be relied on.

If, as rarely happens, the sleepless state is so pronounced or prolonged as to distress patient, we never hesitate to give an opiate, by mouth, and with good result. Erlenmeyer says: "In such cases there remains nothing to do but to resort to morphin. I give then the alkaloid internally on two consecutive evenings; a certain cumulative effect takes place. The first night, in the dose of one-third grain, there is usually no sleep;

but on the second night, after giving the same dose, a sound sleep of six hours will ensue. I have not observed any special danger from these resumed doses of morphin, although I feared it; but after I was constrained in several bad cases, when every other medicine had failed, to resort to this, I was convinced that my fear was groundless." We think one full dose better than two small ones.

In all cases drugs should be dropped soon as possible, and sleep secured by a psychic soporific, a Turkish or half-hour warm bath, a walk or cycle outing, an electric or hypnotic seance—the main value of hypnotism in these cases is as a post-poppy soporific—a lunch, a glass or two of hot milk—one or more of these before retiring. Patients whose slumber ends early often note a peculiar depression on rising; if so, milk, malted milk, cocoa, coffee, beef—hot—should be at command.

En passant, as to certain infrequent sequelæ and their treatment.

Seldom, unrest and insomnia compel hyoscin. If so, give I-IOO to I-20 grain of hydrobromate, subderm., or double by mouth. Delirium is rare. If mild, condensed food should be freely given; if marked, morphin may be added.

If dyspnea or palpitation, a stimulant—coca with capsicum, or Hoffman's anodyne with aromatic spirits of ammonia—will control. If pain in calves, strong galvanic or faradic currents, hot water, ether, massage. If peculiar burning in soles, mustard foot-baths. If marked hysteria, ether inhalations. Belly pain may be eased by hot water, full doses of ether in hot water, or camphor with capsicum. The latter, with atropin injections, act happily in ovarian irritation. Atropin works well in over-sweating or chilliness—symptoms that sometimes annoy.

Returning sexual activity, as shown by erections and emissions, as a rule needs no attention. We once noted, however, a case where renewed virile vigor was so marked that repressive measures were demanded. The special function of females—usually irregular or suspended—requires no special care. Nature rights herself.

The "craving," so-called—which we have rarely noted—is met by nitro-glycerin, which also acts kindly in the unrest or low spirits sometimes seen toward the close of the codein taking. The trinitrin should be given in 1-100 grain tablet, allowed to slowly dissolve on tongue, every ten minutes till relief or systemic effect ensues. This "craving," which is thought by some to be due to over-acid gastric and other secretions, can sometimes be relieved by sodæ bicarb. The soda treatment in morphinism—"chemical demorphinization," it has been styled—has gotten quite a vogue in some circles abroad, being thought

almost a panacea. Hitzig specially vaunts it. But it is not a specific—merely a valued adjunct. Sodæ bicarb., 30 to 60 grains, may be given after each meal, or Schultz's Vichy, or Vichy Celestin, freely used. Credit for first calling attention to its value, as well as that of glonoin, is due Dr. Jennings.

Collapse—which we have never seen—as threatened by irregular pulse and breathing, pallid, livid skin, or faintness, demands prompt treatment, or patient will die. An immediate injection of morphia, full dose, must be given, and repeated every ten or fifteen minutes, if required.

In cases where rest in bed is deemed best, we sometimes give a full opiate at the end of the rest period. This breaks the abstinence tension and prevents that strange recurrence of symptoms sometimes seen about a week after quitting, and the general effect is good.

Non-mention of dionin and heroin may be noted. These drugs have been used in the treatment of morphinism. Dr. Jennings condemns them. We think them of value, but in no sense a specific. Each is inferior to codein. Their special good is as an anodyne in neuralgic outbreaks after the morphin quitting. They are unsafe for self use. We prefer heroin. Inebriety from each is possible. We have treated heroin habitués.

Opinions vary as to alcohol. We condemn it.

Its value in active treatment is small; its risk of remote mischief large. Counsel to use it freely is bad. The sub-toned system takes kindly to it in any form, and, unless care be taken, a drunkard results. The shore of the post-poppy land is strewn with wrecks of those who, after escape from narcotic peril, have taken to rum. Such a course is fraught with danger. The exmorphinist who values his future must wholly abstain.

As soon, and as much as possible, patient should have the outer air and sunshine at open window, in open carriage or car—much walking or other active exercise being avoided for a time; for, if too early taken, it is apt to be followed by fatigue, unrest and insomnia.

Along with what has been suggested should be such other general measures as will add to the good secured. Patients must have attractive surroundings—cheerful society, freedom from worry, amusement, music, the play—anything, everything that will aid in the effort to regain pristine health. That the management of these cases after the need of active medical care is ended is of great importance, enlarged experience increasingly convinces. Neurotic or other disorders noted prior to addiction, whether genetic or not, must be relieved or removed. So, too, those that may first appear after the opiate quitting; and when none of these are met, when there

is merely lessened power of brain or brawn, ample time—months or years if need be, for the greatest risk is within the first year—must be taken in which to get thoroughly well, if the chance of return would be brought to a minimum.

It is not to be supposed that a system shattered by opiate excess will regain its normal status in a week or a month; or that a premature return to mental or physical work will not imperil the prospect of permanent cure. The importance of this must be insisted on. To medical men-who make 70% of those who honor us with their care-it is specially commended. Professional duty must not be resumed too soon. The risk of a narcotic reusing is in reverse relation to the opiate abstention, and as favoring this abstinence, non-use of alcohol or tobacco, long rest, change of scene, land or sea travel, all have much promise of good. Vide "The Post-Active Treatment of Narcotic Inebriates," Journal Amer. Med. Assoc., 1895.

Some details of treatment other than strictly remedial may be of interest.

As to the mode of taking, a radical change is made. If subdermically, the syringe is at once discarded, and morphin given by mouth. In almost every case—of hundreds of cases, we have noted only two to the contrary—this can be done at once. If not—its use causing nausea, vomiting or headache—the usual method can be resumed

for three or four days, and the bromid influence having been secured in part, the syringe may be put aside.

Patients taking subcutaneously, 10 grains or more, daily, will get on, usually, with the same amount by mouth. Under that, an increase of one-half or double is needed.

Some may demur to the change, but it should be insisted on, for experience has proven points in its favor. There is, we believe, often a fascination about the syringe which, once ended, marks an advance toward success. Many patients seem to think the injections essential, and to convince them to the contrary—as the change in taking will—gives a feeling of gladsome relief and larger confidence in a happy result.

Again, the staying power, so to speak, of morphia by mouth is greater. The effect, subdermically, is quicker and more decided, but earlier subsides—a higher acme sooner reached and ended; whereas by mouth the effect is slower but more even and persistent. Patients injecting six, eight or more times daily, will do well on four doses by mouth. The change in taking brings, too, a betterment in patient's condition—notably, larger appetite and improved alvine action.

Our plan, in the opiate decrease, is not to imform the patient as to its progress, nor the actual time when it is ended. Better tell, days after the last dose, and then the assurance that so long a time has gone since the enemy was routed will, of itself, be an aid in the good work.

During decrease, the only restriction imposed is that a certain supply shall suffice for twenty-four hours, and this is daily lessened at such rate as will least conflict with their comfort. Patients are always told, moreover, that if the amount allowed is not enough, they are to apply for and will be given more. Such being the case, no proper motive exists for secret taking and if, despite this liberal proviso, it be indulged in, professional relations are suspended.

Clandestine taking, before or after quitting, can always be detected. The absence of certain sequelæ of an honest ending, and the test of a two days' vigil furnish proof beyond dispute.

The usual duration of treatment in simple cases under our care is four weeks—the rule being to dismiss patient, if other conditions favor, after he has been able to sleep each night, for a week, without hypnotic. Erlenmeyer, whose method is rapid reduction, though without the valued aid of preliminary sedation, says: "Three or four weeks are generally sufficient to remain in the institute; the sojourn may be longer than this, but should not be less." This refers, of course, to the period of active medical care. The need and importance of further hygienic measures we have noted; and they are absolutely essential to insure a lasting cure.

Levinstein advised: "As soon as the patient has consented to give up his personal liberty, and the treatment is about to commence, he is to be shown into the rooms set apart for him for the period of eight to fourteen days, all opportunities for attempting suicide having been removed from them. Doors and windows must not move on hinges, but on pivots; must have neither handles, nor bolts, nor keys, being so constructed that the patients can neither open nor shut them. Hooks for looking-glasses, for clothes and curtains must be removed. The bedroom, for the sake of control, is to have only the most necessary furniture; a bed devoid of protruding bed-posts, a couch, an open wash-stand, a table furnished with alcoholic stimulants-champagne, port-wine, brandy-ice in small pieces, and a tea-urn with the necessary implements. In the room which is to serve as a residence for the medical attendant for the first three days, the following drugs are to be kept under lock and key: a solution of morphin of 2%, chloroform, ether, ammonia, liq. ammon. anis., mustard, an ice-bag, and an electric induction apparatus. A bath-room may adjoin these two apartments. During the first four or five days of abstinence the patient must be constantly watched by two female nurses."

Why this rigorous regime? Because the lack of proper medical measures makes essential physical force. Because the method entails such distress of mind and body as to risk a suicidal ending; and a calamity always impends—collapse, that threatens life, and demands that the doctor be close at hand to avert the dreaded danger.

In contrast with this, during our opiate decrease, patients are allowed to be about and engage in social pleasures, and this is continued throughout treatment, save a transient suspension just before and after the opiate is withdrawn.

Following the opiate quitting in those who receive the rest-time treatment, they are, for a while, under special attention; and, if needed, an attendant is with them, but the need for such service is usually limited, and in most cases not required.

It may excite surprise that so large confidence is extended patients and so much liberty allowed. The reason is soon given: only those are accepted who have an earnest desire to recover. That is a sine qua non of success. With this incentive, it is fair to suppose that the patient will help rather than hinder in the effort to do him good. Besides the treatment during decrease does not impose such need for an opiate as to impel a secret supply; and, once the abstinence begun, helpful measures at command tide him through this time without such discomfort as, otherwise, he would be quite helpless to endure. This being so, the somatic status does not compel that

rigorous restraint which the torture of abrupt disuse makes essential to success.

As to the weakened will and damaged morale which, without doubt, in many cases, attend chronic opiate-using, we dissent from the largelyheld opinion that all opium habitués are liarsmoral lepers, who take the drug from mere vicious desire, and so are quite unworthy of trust. We believe that in many cases a leading factor in this moral obliquity is the principle of self-protection; the habitué's desire to shield himself from that censure which the common opinionunjust and untrue—that he is simply a vicious indulger, involves. This opinion aside-this disease, in many cases, regarded like other diseases, as the outcome of conditions beyond controlone large incentive to deceit will no longer obtain.

In legal ethics, innocence is presumed till guilt is proven. The same rule holds in our treatment of these patients. We extend confidence—deem them worthy of trust till proven otherwise—and think we enhance a good result in so doing. To regard them as culprits under constant suspicion is not our plan. No one will submit to such espionage without a sense of resentment that is likely to imperil the cordial relation that should ever exist between patient and physician, and so thwart success. Vide "The Ethics of Opium

Habitués," Brooklyn Med. Journal; Med. and Surg. Reporter, 1888.

Treatment begun, it must be continued along such lines as will avoid the risk of painful conditions that impel to secret taking, even at the loss of honor and ultimate success. In the plan we pursue this risk does not obtain. It is no surprise that patients forced to endure the suffering of sudden entire disuse shrink from nothing to end their distress. Little wonder they require restraint, and little wonder that the torture of such a brutal ordeal is the largest factor in this coercive need.

As between this method and the brutal plan of those who counsel and compel heroic quitting, "Comparison is odious." It is utterly inexcusable, it is positive malpractice to subject patients to the torture of mind and body the abrupt method entails. It is wrong, grievously wrong; more, it is *cruel* to demand that they shall run the gauntlet of such suffering.

In various papers we have expressed our views on this subject, and enlarged experience only confirms. More and more pronounced is our belief that no physician is warranted, save under conditions peculiar and beyond control, in subjecting his patient to the torturing ordeal of abrupt withdrawal. We are aware that it has the sanction of some—otherwise eminent—in the profession—but theory is one thing, practice another,

and were they compelled to undergo the trial, there would be rapid and radical change of opinion. It is brutal, utterly unworthy the healing art.

Men high in the profession may advise such treatment, but we feel bound to say that it is "the cruelty of ignorance," or a heartless disregard of suffering, either of which is without excuse.

Modern medicine has much to aid in treating this disease, and the doctor not abreast the times along this line had best consign such cases to other care.

We care not who advocates it, but speak strongly, feelingly and advisedly on this point, for the simple reason that our experience proves beyond all question that the opium habitué can be brought from his bondage without any such crucial suffering as this method of treatment entails.

Bartholow says: "Having had one experience of this kind I shall not be again induced to repeat it, if for no other, for strictly humanitarian reasons, since the mental and physical sufferings are truly horrible."

The claim that this barbarous method is "the only safe one," is false. More than one death has been charged against it, while the unrecorded life loss none can know. And the number who come perilously near to dying is not small. Of 22 cases thus treated by Levinstein, 7 were in immi-

nent danger of death, and only saved by the prompt injection of morphia. Obersteiner cites similar cases; tells of vomiting repeated 80 times in twenty-four hours; of "such intense prostration that the patient was thought dead"; and admits it "the cause of very great suffering, or even jeopardizing life!"

The claim that this inhuman treatment is the "only one to secure the patient against relapse," is not true. Most of Levinstein's and Obersteiner's patients had return of their disease, "notwithstanding the unwarrantable torture to which they were subjected." Dr. Jennings truly says: "Dreadful as are the tortures inflicted, they do not, as a matter of fact, afford any safeguard against relapse."

Many, unaware that a humane method is at command, and dreading the ordeal of abrupt disuse, refuse to accept it, and, continuing the narcotic, bind all the more closely "the web that holds them fast as fate." Sixteen years ago, a naval surgeon, nine years a morphia taker, II grains subderm., daily, came to our care. Six years before, he first consulted us. During this time he read Levinstein's book, and the dread of such suffering as that author's patients underwent, was, he avowed, the reason for his delay in making an effort to quit the drug. Finally, summoning sufficient courage, the trial was made, and with most gratifying success, for, greatly to his

surprise and delight, he made a notably good recovery, with so little nervous discomfort that not a single bath was needed, and such freedom from pain that not once was an anodyne demanded, and was dismissed on the twenty-sixth day of his treatment. His cure has continued.

Commenting on his case, he declared the manner of his cure seemed "almost miraculous," and asserted that had he ever thought so much could be accomplished at so little cost of time and discomfort, his effort, years earlier, would have been made; and, later, he wrote: "My own swift and easy passage of that 'one more river to cross' is an ever-recurring source of wonder and astonishment to me. and not a day passes, not a morning comes, without a keen sense of exultation at my escape from the old slavery, a blessed freedom from the old self-accusing conscience, and a return of the old instinctive habit of looking every one straight in the eyes. I think I shall never entirely get rid of a certain shadow of the past: nearly nine years of mental distress, which I thought well-nigh hopeless, must leave a deep and ugly scar at my time of life; but, thank God that I have only the scar to trouble my memory, and not the festering, corroding, ever-present ulcer which made me unspeakably wretched, and kept me in continual fear of discovery."

Morphinism is vincible. Modern medicine has done much in its treatment, for never was it so successful as now, and ample experience warrants assertion that every case free from organic disease, and in which there is an earnest desire to recover, admits of prompt and positive relief.

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